BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK :Maintainence and repairs of borewells and providing pieline in ward no.07 byatarayanapura

								Estimation Cost.Rs	0.00
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
1	Geophysical Investigation of site for sinking Borewell Geophysical Investigation of site for sinking Borewell for supplying drinking water to the habitation either through a hand pump, Mini Water Supply scheme, or Piped Water Supply Scheme by vertical electrical sounding by adopting venner or Schlumberger's method, including reconnaissance survey of geological formation, geophysical investigation of existing ground water in the vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation incluing an extra depth of 1.0 metre in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No - 148, I.No-13.04,RWS 19-20 SR)								
		Each BW	1				1	3881.04	3882.00
	Basic Rate	**3768**							
	3% Area Weightage	**113.04**							
	Total	**3881.04**							
2	Sinking of Borewell of 165mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burdern. Fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicle, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (Excluding cost of casing pipes, collars, cap etc., complete), complete and as per the directions of the Engineer-in-charge of the work .(P.No - 148, I.No-13.01,RWS 19-20 SR)								
	0-50mtrs	Rmtr	1	50.00			50.00	357.41	17871.00
	Basic Rate	**347**							
	3% Area Weightage	**10.41**							
	Total	**357.41**							
2a	50-100mtrs	Rmtr	1	50.00			50.00	455.26	22763.00
	Basic Rate	**442**							
	3% Area Weightage	**13.26**							
	Total	**455.26**							
2b	100-150mtrs	Rmtr	1	50.00			50.00	469.68	23484.00
	Basic Rate	**456**							
	3% Area Weightage	**13.68**							
	Total	**469.68**							
2c	150-200mtrs	Rmtr	1	50.00			50.00	552.08	27604.00
	Basic Rate	**536**							
	3% Area Weightage	**16.08**							
	Total	**552.08**							
2d	200-250mtrs	Rmtr	1	50.00			50.00	653.02	32651.00
	Basic Rate	**634**							
	3% Area Weightage	**19.02**							
	Total	**653.02**							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
3	Supply of ISI Mark nominal bore, plain end steel casing pipe-grade of steel Fe 410 of wall thickness conforming to IS 4270-2001 and latest amendments, electrical resistance welded steel tube material and conforming to IS 1387- 1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7m. Both ends threaded conforming to IS 554-1985, one end fixed with socket conforming to IS 4270-2001 and the other end with screwed pipes. All pipes shall be resonably free from defects. The tubes shall be resonably straight and should be with ISI marking weighing 25.10kg/m. (exclusive of all taxes and duties). Prices include Collar-Medium duty 175mm dia x 5.4mm thick - Rs.950.00 complete and as per the directions of the Engineer-in-charge of the work.(P.No-338, Sl.No-15.85,RWS 19-20 SR)								
		Rmtr	1	60.00			60.00	1364.75	81885.00
	Basic Rate	**1325**							
	3% Area Weightage	**39.75**							
	Total	**1364.75**							
4	PVC Pipes 10kg/sqm 250mm outerdia(PWD SR 2018-19 XXXV/892 Code 3008)								
		m	1	10.00			10.00	2203.39	22034.00
5	Providing and laying at site of work MS casing caps as per IS 1239 (part-II) 1982 with all latest amendments if any for any dia. The thickness of plate used for covering one end shall be 3mm (minimum). The dimensions of caps and colars shall be strictly as per IS 1239 (Part-II) 1982 with all amendments including cost of material and labour charges for fixing, if any etc. complete with all lead and lifts and as directed by the Engineer in charge(P.No-338,Sl.No-15.87,RWS 19-20 SR)								
		Each	1				1	103.00	103.00
	Basic Rate	**100.00**							
	3% Area Weightage	**3.00**							
	Total	**103.00**							
6	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work.(P.No-30,I.No-5.42,KPWD Electrical SR 19-20)								
		Sq.cm	1	1000	20		20000	0.35	7000.00
7	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI union confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.78.5)								
		No	1	1			1	180.25	181.00
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							
	Total	**180.25**							
8	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI hexagonal nipple confirming to IS 1239-II, 1991 with latest amendments if any. (RDWS SR 2019-20 C-15/P-258 I. No. 15.80.5)								
		No	1	3			3	144.20	433.00
	Basic Rate	**140.00**							
	3% Area Weightage	**4.20**							
	Total	**144.20**							
9	Supply and delivery at site wrought middle steel (galvanized) 50 mm dia GI elbow confirming to IS 1239-II, 1991 with latest amendments if any.(RDWS SR 2019-20 C-15/P-257 I. No. 15.73.5)								
		No	1	3			3	180.25	541.00
	Basic Rate	**175.00**							
	3% Area Weightage	**5.25**							

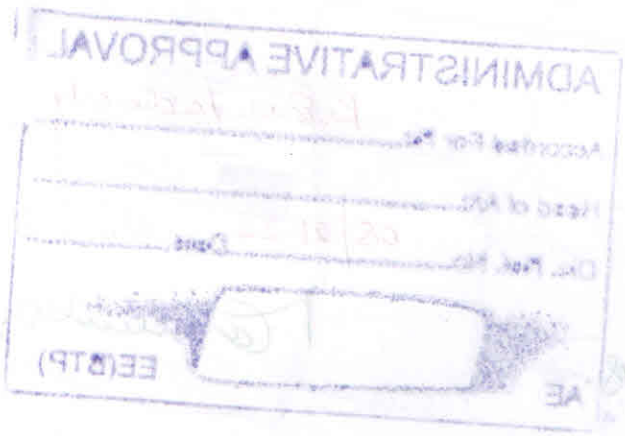
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Total	**180.25**							
10	Labour charges for Erection, Electrification and commissioning works of Pump sets including aligning and balancing with all necessary erection of materials and labour including supply and erection of two pair of supporting clamps, bore well caps, cable clips and water tight gland cable protectors, bolts, nuts, valve and gauges, tools and equipments etc., involved in the job. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 130, I.No-12.16,RWS 19-20 SR)								
		Job	1				1	5819.50	5820.00
	Basic Rate	**5650**							
	3% Area Weightage	**169.5**							
	Total	**5819.5**							
11	Labour charges for Erection of outdoor type panel board and meter board units with all necessary materials and labour tools and equipments including providing cement concrete foundation bed etc., complete. as per specifications, with testing of as per instructions of engineer incharge of work(P.No - 131, I.No-12.18,RWS 19-20 SR)								
		Job	1				1	1233.94	1234.00
	Basic Rate	**1198**							
	3% Area Weightage	**35.94**							
	Total	**1233.94**							
12	Supplying of 1.1KV LT UG cable XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm (Ele SR 2019-20 P-No 40 I/No-6.4.4)								
		Rmtr	1	30.00			**30.00**	**150.00**	**4500.00**
13	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
		Rmtr	1	30.00			**30.00**	**11.88**	**357.00**
14	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete cutting road surfaces(P.No - 41, I.No -6.6.3, KPWD Electrical SR 19-20)								
		Mtr	1	30.00			**30.00**	**82.00**	**2460.00**
15	Supplying and fixing of class A GI pipe on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class 40mm (P.No - 41, I.No -6.9.1, KPWD Electrical SR 19-20)								
		Mtr	1	4.00			**4.00**	**335.00**	**1340.00**
16	Earthing: Supplying and fixing and wiring earth electrode for grounding circuits IC cutouts and other equipments on the meter board in the pit. The pits should be filled up with equal proportion of salt and charcoal 150mm around the pipe to complete depth. The connection from the pipe to the conduits etc. is to established through GI wire of sizes as per clause 7.3.3 of IS 732 using 12mm bolts, nuts, washers and check nuts, the pipe shall have 16 through holes of 12mm dia.(P.No - 131, I.No-12.23,RWS 19-20 SR)								
		Nos	1				1	3741.99	3742.00
	Basic Rate	**3633**							
	3% Area Weightage	**108.99**							
	Total	**3741.99**							
17	Providing, Supplying and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.with all necessary materials and labour tools and equipments . as per specifications, with testing of as per instructions of engineer incharge of work a) 3½x6 Sqmm (P.No - 131, I.No-12.22(a),RWS 19-20 SR)								
		Nos	1				1	511.91	512.00
	Basic Rate	**497**							

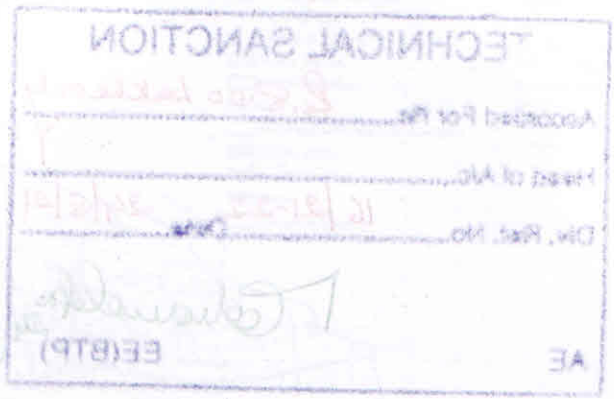
Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	3% Area Weightage	14.91							
	Total	511.91							
18	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc..Size 20 x 20 x 2.5 inches with all lead and lift, loading, unloading and labour charges etc., complete and as per the directions of the Engineer-in-charge of the work(P.No - 24, I.No -5.6.6, KPWD Electrical SR 19-20)								
		Nos	1				1	292.00	292.00
19	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 20 HP 40 Stage(PWD SR 18-19, P.No.XLII Sl.no.60)								
		Nos	1				1	90595	90595.00
20	Supply and delivery of galvanized mild steel tubes of 6 mtr standard length heavy class (C Class) as per IS 1239 (Part-I) 1990 with latest amendments with ISI Mark (one end fitted with heavy duty collar and other end fitted with protective cover) (50mm) (P.No - 130, I.No-12.11(a),RWS 19-20 SR)								
		Rmtr	1	59.00			59.00	2861.34	168820.00
	Basic Rate	2778							
	3% Area Weightage	83.34							
	Total	2861.34							
21	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990.complete and as per the directions of the Engineer-in-charge of the work(P.No - 7, I.No -2.6.4, KPWD Electrical SR 19-20)								
		Mtr	1	600.00			600.00	205.00	123000.00
22	Supplying & delivery at site brand new / Essen / lotus sunsines/Adarsh/Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph,50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz,380/440 AC supply shall be consisted etc., completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No.XLVII, Sl No.13, PWD SR 2018-19								
		Nos	1				1.00	21000.00	21000.00
23	Supply and delivery at site of brand new best make gate valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 128, I.No-12.05(a),RWS 19-20 SR)								
		Each	1				1	1225.70	1226.00
	Basic Rate	1190							
	3% Area Weightage	35.7							
	Total	1225.7							
24	Supply and delivery at site of brand new best make non-return valve as per IS 778/1984 with ISI Mark and as per its latest amendments a)size 50mm (P.No - 129, I.No-12.06(a),RWS 19-20 SR)								
		Each	1				1.00	1210.25	1211.00

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Basic Rate	**1175**							
	3% Area Weightage	**35.25**							
	Total	**1210.25**							
25	Supply and delivery at site delivery of best indigenous brand new MCB (Miniature Circuit Breakers) of required capacity as per IS 88228/1978 and its latest amendments and with ISI Mark of 6/10/16/20/25/40 Amps with scalable box. (P.No - 130, I.No-12.10,RWS 19-20 SR)								
		Each	1				1.00	1055.75	1056.00
	Basic Rate	**1025**							
	3% Area Weightage	**30.75**							
	Total	**1055.75**							
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications(P.No - 6, I.No - 2.3, PWD SR 18-19)								
	For Connecting borewell	Cum	1	37.00	0.45	0.6	9.99		
	Sub total						9.99	316.94	3167.00
	Basic Rate	**299**							
	6% Area Weightage	**17.94**							
	Total	**316.94**							
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including joining of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.No - 89, Sl.No - 10.01.2,RWS 19-20)								
	For Connecting borewell	Mtr	1	37.00			37.00		
	Sub total						37.00	126.69	4688.00
	Basic Rate	**123**							
	3% Area Weightage	**3.69**							
	Total	**126.69**							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.No - 7, I.No - 2.11, PWD SR 18-19)								
	For Connecting borewell	Cum	1	37.00	0.45	0.6	9.99		
	Sub total						9.99	128.26	1282.00
	Basic Rate	121							
	6% Area Weightage	7.26							
	Total	128.26							
29	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc. in the following classification. (RDWS SR 2019-20 Pg No.08 I No.2.26) Cutting Asphalt Road Surface(RDWS SR 2019-20Pg No.08 1 No.2.26.2)								
		Cum	1	37.00	0.45	0.15	2.50	574.52	1435.00
	Basic Rate	**542.00**							
	6% Area Weightage	**32.52**							
	Total	574.52							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
30	Earthwork excavation in soil, clay, sand, shedu soil, soft murrum, including shoring, strutting, barricading, danger lighting, bailing out water wherever necessary with stacking the materials as directed upto a lead of 50 Mtr and lift of 1.5 Mtr etc., complete.(RDWS SR 2019-20Pg No.08 I No.11.13)								
	For Water Recharge	Cum	1	3.14x1.80x1.80/4		3.00	7.63	356.38	2720.00
	Basic Rate	346							
	3% Area Weightage	10.38							
	Total	356.38							
31	Add for additional lift charges for every lift of 1.50 M or part thereof beyond 1.50 Mtr to 10.50 Mtr (RDWS SR 2019-20Pg No.08 I No.11.13.1)								
	For Water Recharge Pits,	Cum	1	3.14x1.80x1.80/4		1.50	3.82	58.71	224.00
	Basic Rate	57.00							
	3% Area Weightage	1.71							
	Total	58.71							
32	Providing and laying in position plain cement concrete of grade M 10 with cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, including cost of all materials, labour, HOM of machinery, curing,lowering to any depth, dewatering etc., complete as per specifications with all lead and lifts for Foundation of steining. (RDWS SR 2019-20Pg No.08 I No.11.17)								
	For Water Recharge Pits,	Cum	1	3.14x1.2	0.15	0.15	0.08	6213.99	527.00
	Basic Rate	6033.00							
	3% Area Weightage	180.99							
	Total	6213.99							
33	100 mm and down nominal size (RDWS SR 2019-20,P No.I item No 23)								
	For Water Recharge Pits,	Cum	1	3.14x1.20x1.20/4		0.60	0.68		
						Total	0.68	1017.25	690.00
	Basic Rate	987.62							
	3% Area Weightage	29.63							
	Total	1017.25							
34	40 mm nominal size stone aggregates ((RDWS SR 2019-20 P No I item No 25)								
	RCC Pits,	Cum	1	3.14x1.20x1.20/4		0.60	0.68		
	Filter media around rings		1	3.14x1.4	0.40	2.70	1.19		
						Total	1.87	1124.17	2097.00
	Basic Rate	1091.43							
	3% Area Weightage	32.74							
	Total	1124.17							
35	20 mm nominal size stone aggregates ((RDWS SR 2019-20,P No I item No 28)								
	RCC Pits,	Cum	1	3.14x1.20x1.20/4		0.60	0.68		
						Total	0.68	1124.17	763.00
	Basic Rate	1091.43							
	3% Area Weightage	32.74							
	Total	1124.17							
36	6 mm nominal size stone aggregates ((RDWS SR 2019-20.P No I item No 31)								
	RCC Pits,	Cum	1	3.14x1.20x1.20/4		0.60	0.68		
						Total	0.68	1124.17	763.00
	Basic Rate	1091.43							
	3% Area Weightage	32.74							

Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
	Total	1124.17							
37	KSRB 2.6: Providing and filling sand (RDWS SR 2019-20,P No II.item No 2d 51)								
	RCC Pits,	Cum	1	3.14x1.20x1.20/4		0.50	0.57		
						Total	0.57	1731.38	979.00
	Basic Rate	1680.95							
	3% Area Weightage	50.43							
	Total	1731.38							
38	Supplying & erection of RCC rings for well steining of 0.3 Mtr Depth using M-20 grade concrete using clean graded granite or trap or jelly of approved quality 20mm and down size well compacted including centering, formwork and plastering for both faces with C.M 1:3 proportion as per design using 6.50mm M.S. coil at the rate of 10 Kgs/ring including cost of steel and fabrication, bailing out of water, erection etc., complete. For 1.20m dia (clear) rings of steining thickness 0.075mm upto 18 M depth(RDWS SR 2019-20Pg No.08 I No.11.20.3)								
	RCC Pits,	Each	10				10.00		
						Total	10.00	1142.27	11423.00
	Basic Rate	1109.00							
	3% Area Weightage	33.27							
	Total	1142.27							





Sl.no	Description of Item	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate	Amount
39	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM complete as per specifications. Specification No.KBS 7.12 (p.g No 34.item No 7.9)								
	RCC Pits,	Kgs	1	3.14x1.20x1.20/4			1.13		
							1.13		
						Total=1.13 x21kg/sqm	23.73	100.70	2390.00
	Basic Rate	95.00							
	6% Area Weightage	5.70							
	Total	100.70							
	BESCOM Charges	Nos	1				1	15000	15000.00
								Total of Other SR Items including GST Unit Rate	15000.00
								Total of PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	700745.00
								Sub Total	715745.00
								Add 12% GST for PRED 19-20,Electrical SR 19-20,PWD SR 2018-19 Items	84090.00
								Miscellaneous and Unforeseen charges	165.00
								Total	800000.00

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum.
4) The estimate is based on C.S.R of 2018-2019, PWD Electrical 2019-20,RDWS 2019-20, approved Rate and Issused Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Assistant Executive Engineer
Kodigehalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092

Executive Engineer
BBMP

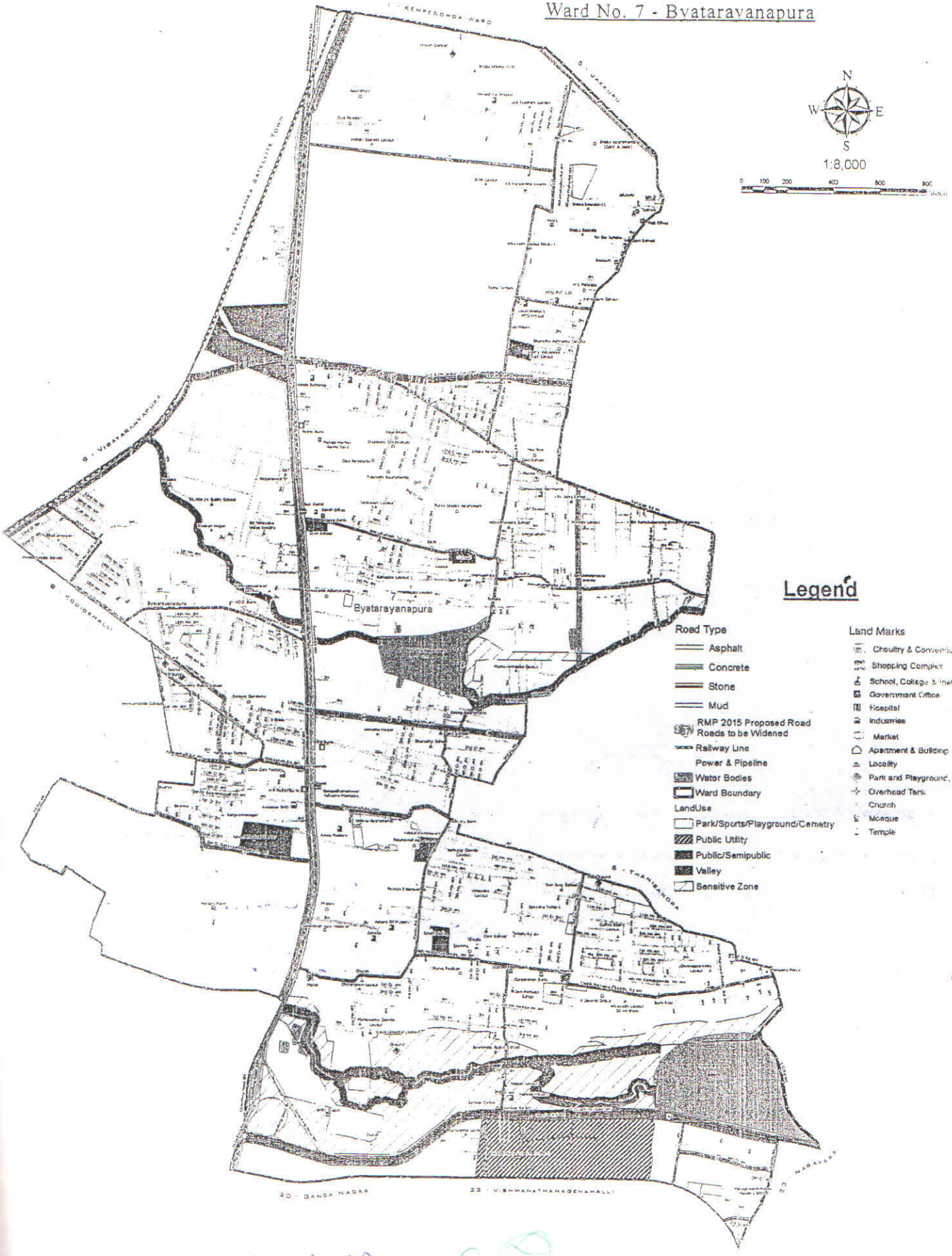
TECHNICAL SANCTION
Accorded For Rs. Rs.8.00 Lakhs only
Head of A/c
Div. Ref. No. 16/21-22 Date 24/8/21
AE EE(BTP) 24/8

ADMINISTRATIVE APPROVAL
Accorded For Rs. Rs.8.00 Lakhs only
Head of A/c
Div. Ref. No. 08/21-22 Date 24/8/21
AE EE(BTP) 24/08

BRUHATH BANGALORE MAHANAGAR PALIKE

Yelahanka Zone - Byatarayanapura Sub-division

Ward No. 7 - Byatarayanapura



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